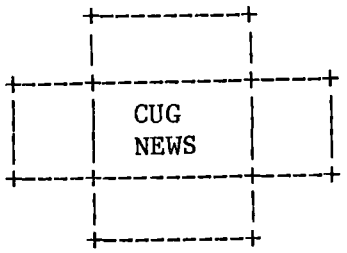

Computer Users' Group
August, 1984 Vol 7 No 0

HERE WE GO AGAIN...

Welcome (back) to another year of computing at Concordia! This is an (ahem) "interesting" year... Those of you who are returning to our wonderful Computer Center may very well wonder if you're in the right place. Those of you joining the show in progress may very well wonder just what's going on. All of us would like to see things go as smoothly as possible, however--and that's where the Computer Users' Group enters the picture.

SO WHAT'S A CUG?

Allow us to introduce ourselves... CUG, the Computer Users' Group, at your service! The point is that CUG is your group, and we really are at your service.

CUG is a student group serving the interests of all students who use any of Concordia's many computer systems. You need not be a Computer Science student to benefit from our efforts, nor must you already be a computer expert.

We'll be attempting many different projects during the year, including holding seminars on various aspects of computer usage, publishing student-written manuals on the Cyber and VAX systems, printing this newsletter each month, plus various "events". Watch for a "Meet Your Professors" Wine and Cheese party to be held in October, for the Small Business Computer Show later in the year, and for anything else we can think of. (Probably including parties at Christmas and at the end of the year)...

CUG is a student group, and we cannot function without **you.** If any of the above sounds interesting, if you have any ideas, if you need any help, or if you just want to get involved, then JOIN US! Get in touch with us. We'd love to hear from you... We'd love even more to sign you up as a member. How do you find us? Thereby hangs a tale...

HOW TO CONTACT CUG

You can reach us in a number of ways. We have an office on the ninth floor of the Hall building, in room H-983. We'll be maintaining regular office hours there, which will be posted on the door as soon as they're decided. Our phone number there is 879-7329, which you can remember easily if you think of TRY-SECX. You can also send us mail on any of the larger computer systems. On either Cyber (825 or 835), use the MAILBOX facility to send mail to account CCUSC51 (this can only be done from timesharing, NOT from the JEF system; if none of these terms make sense to you, then you need us!) On the VAX, use the MAIL system to send mail to account CUG (kind of hard to remember, isn't it?)

To become a member of CUG, just contact us using any of these methods and give us your name, student number, account number, and (optionally) your telephone number.

That's all! Absolutely free, a price even I an afford!

CUG EXECUTIVE, 1984-85

The executive of CUG for 1984-85 consists of the following people:

Steven Winikoff	- President
Nathalie Orianne	- Vice-President
Martin Walker	- Secretary
James Hyjek	- Treasurer
Fattaneh Akhavan	- Executive Officer
Yvon Bourdeau	- Executive Officer
Lora Crighton	- Executive Officer
John Dupuis	- Executive Officer

You're extremely welcome to contact any of us personally at any time...

ELECTION!

The federal Liberals, Conservatives, New Democrats, et al can't have all the fun... So CUG will be holding an election of our very own. For the first time in our illustrious (?) history, we have added a new position in our executive, which must be filled by a first-year student.

Do you fit that qualification? Are you hardworking, dedicated, bright, fearless, etc.? (Now where did everybody go??)

If CUG sounds like it might be interesting, then you're our kind of person, and we want you to run for the newly-created post of CONTACT OFFICER.

The Contact Officer is a student in his or her first year of studies at Concordia, and must be (or become) a member of CUG. The duties of the Contact Officer are the same as those of our regular Executive Officers, namely to be a part of the team that organizes and runs CUG projects and events. But the Contact Officer has an additional, special function to keep the rest of the executive informed and aware of the particular problems facing first-year students using our computer systems.

This is an important post which must be filled by a responsible individual. This is a job for YOU! We urge you to stand for election, by announcing your candidacy in writing at the CUG office (room H-983) during the nomination period, which will extend from 9:00 AM on Monday, September 10, until 5:00 PM on Friday, September 21, 1984.

The person to contact for more information, or to see about nomination, is the Returning Officer, John Dupuis.

Ninth-Floor News

So you've just walked in off the street on to the ninth floor of the Hall building, all ready for the start of another frantic year of computing. So here you are, ready to sit down at your favourite terminal and start typing away... But wait! Something's wrong! This isn't the same old ninth floor...

Several changes have in fact taken place over the summer, as the Computer Centd^ has not bJ^ idle. Here's a rundown on the more important changes:

First of all, the last remaining boat anchors (sorry, I really meant to say "keypunch machines"...) have been removed from the Hall building. In their place will be a new terminal room next to the service elevators (and right around the corner from our office, in fact). If you happen to have any important card decks around, you'd better have them read FAST before the Center also gets rid of the last remaining card reader on the 835.

The Hall 825 has been upgraded, with another 32 communications ports, 28 new terminals, and 6 dial-up lines. AT LAST we can call

this machine from terminals at home. (Last year's 825 users have long memories!)

The Hall 825 will finally be able to communicate with the 835, and the 835 itself will be able to communicate with the Amdahl computer at McGill. This has not been implemented yet, but watch for it in the near future.

There will be 8 new communications ports, 4 more terminals, and 2 dial-up lines installed on the VAX 11/750. There will also be limited access to this machine from the Loyola campus as well.

Two of the old 835 terminal rooms (rooms 906 and 960, to be precise) have been re-allocated to the 825. This means more 825 terminals, and fewer 835 terminals. But don't worry, since another new feature is the fact that nearly all undergraduate courses will be on the 825 or the VAX.

The Hall building printers are in the process of being replaced. When the dust settles, there will be brand-new, quieter Printronix printers available on the ninth floor. One of the new machines will be able to print at 1200 lines/minute, twice the speed of the other machines.

News from Loyola

Our Loyola correspondent was on summer vacation at the time this was written, so the source for this information is a communique issued by the Computer Center. Basically, there are two major visible changes to the Center facilities available to students in the Central building at Loyola:

A NESTAR network of 20 IBM PC's is being installed, which will be similar to the one in the Hall building. No word yet on exactly who will be using these machines.

The configuration of JEF and timesharing terminals has been changed, with a net gain of 8 terminals. Among the new equipment will be one terminal connected to the Sir George VAX 11/750, and 3 terminals connected to the Hall 825.

NOS News

Okay, so now you're up to date on most (if not all) of the hardware changes around the Hall building. Now it's time to hit that terminal and get to work. Right? Well... if you're working on the VAX, then you have nothing to worry about. But if you're on either of the Cybers, then have I got an operating system for you...

During the summer, Concordia officially upgraded the Network Operating System (NOS) on both Cybers from version 1.5 to version 2.2. "So what?" I hear you ask. Well, you see, NOS 2.2 is rather different from NOS 1.5. (You knew there had to be a catch somewhere...)

Actually the change is less noticeable than it had to be, because we've been at NOS 2 "unofficially" for almost a year. But there are still some visible changes that timesharing users should be aware of.

The major difference is the absence of the terminal number. Now when you log in you'll see something called a JSN. This stands for "Job Sequence Number", and serves to identify your terminal session uniquely to the system. If you should be disconnected accidentally (ie someone hitting the "reset" button on the MUX without warning you first!), and if someone else should log in to the terminal you were using, you can still recover your session automatically from any other terminal. In fact, if you have have any recoverable jobs in the system at all, then as soon as you log in you'll see all such jobs listed by JSN, and you'll have the

chance to recover any given one of them at a time. Nice!

The next major difference is the ability to detach a job. What on earth does that mean? Well, suppose you start compiling your favourite 20000-line COBOL program, when you suddenly realize that it's going to take 3 years to finish compiling, and you really have something better to do in the meantime. You suddenly realize that you should have SUBMITted a job in the first place, but now it's too late... So you simply type Control-D (IE hold down the "control" key, usually marked "CTRL" or something of the sort, and type "D"). Your terminal session (identified by its JSN) will vanish into the bowels of the machine, to continue executing on its own, untouched by human hands. You'll be able to start a new session, complete with a new JSN, and continue doing other useful work while waiting. You can even monitor the progress of your detached job, by typing "STATUS,JSN=xxxx", where xxxx is the JSN of that job. You can then recover your detached job later, by typing "RECOVER,xxxx". To get a list of all jobs you have in the system, including the terminal you're running, plus all detached jobs, all submitted jobs, and all print files, type "STATUS,UJN". NOTE: This used to be "STATUS,JN". We told you NOS 2.2 has some differences!

NOTE: The command to detach a job as given above works only on the Cyber 835. On the 825, things are slightly different. On an 825 terminal, you have to know what your "terminal control character" is. (It's usually a left brace ("{"), but it can be changed.) The "detach job" command on the 825 is the terminal control character followed by "D" (ie "{D").

The LIMITS command has been upgraded. Try typing "LIMITS" and watch the fun! The listing you get will be much more comprehensive and easily readable than it used to be.

There are other changes as well, of course, but we're running out of room here... the more obvious and visible changes have been described. For more information consult the brand-new NOS 2 Reference Set manuals now available around the ninth floor of the Hall building.

TXED Upgrade

TXED, the text editor hated by the Computer Center and loved by all other timesharing users on both Cyber mainframes, is in the process of being upgraded from version 3.1 to version 3.2. There are 3 minor changes which are visible to the casual user: For one thing, the question mark prompt has disappeared. Instead of ">?", you'll see just ">". For input you'll see "-" instead of "-?", and in ISUP mode there will be no prompt whatsoever. The second change is the fact that the backslash string delimiter "\" has been defined as a user-changeable special character, with the name ".SD" ("string delimiter", what else?) Therefore the character can be changed with the assignment statement ".SD=x". The third and final visible change is in the fact that TXED 3.2 will automatically GET or ATTACH the edit file if it is not already local (and/or attached to the job). The ATTACH, if done, will be done in READ mode.

TXED 3.2 is under testing at this time of writing, and will be made available to the university at large in the near future.

PROGRAMMING HINTS -- Part 1

When it comes to programming, everyone has his or her own 'best and only way to write programs'. The truth of the matter is that there is no one 'best' way to program; there is no formula to follow to give you a beautiful, fast and correct program no matter what

the problem. All that there are, are a few guidelines to follow on how to approach each separate problem, confident that you are not wasting your time. The name of the method is structured programming, sometimes known as top-down programming. Structured programming cannot be explained in a few words, or even in a few books but perhaps the following proverbs will give you a starting place on how to approach your various programming projects:

DON'T PANIC: Trust me. I know. The first thing you do when faced with a new assignment is panic. One of two urges then overtakes you: you either do it that very second and get it over with or you give in and leave it until the very last minute. Panic; wild, blind, unreasoning, unthinking panic. Beware your worst enemy because it will force you into some very bad habits, and those bad habits will waste you a lot of time and cause you unending frustration.

The first bad habit is the 'get it over with' school of programming. Here, the first thing you do when you get your assignment is start in on the main routines without thought of overall structure: code first, ask questions later. The desire is to start early, end quickly; the method is to rush into the details of the coding without a whole lot of coherent planning or sound understanding of the problem; the result is a program that looks rushed and probably has a lot of bugs in it, both logical and language based. One of the prime disadvantages of trying to get it over with is that you end up spending so much time getting the rushed code to work that you could have taken more time in the first place to think about what you were doing. Time spent thinking about the problem and writing meticulous code saves twice the amount of time in fixing up the code.

Another bad habit is procastination. While rushing is a problem, delaying is an even worse one. When that first surge of panic rises, resist the temptation to run and hide, only to come out the day before the assignment is due. The problems of delaying consideration of the problem are much the same as starting too quickly, only now you have the crushing weight of a deadline to contend with. The results of your lack of planning cause you to rush the assignment but now you don't even have a time cushion to fall back on for all that debugging!

As you can see, this is a case where extremes are bad; the course to follow is the middle of the road. The trick is to give yourself the time to find out what it is you are supposed to do and how exactly you are supposed to do it without waiting until you will be pressed for time to complete the assignment. I know it sounds easy for me to say and that it is a lot harder to do in practise, but if you get into the habit of being disciplined in your work habits, you will reap the rewards.

DON'T WORRY: I believe, without hesitation, that the most important skill needed in programming is confidence. After panic, the second thing running through your head when you get an assignment is, 'Oh my God, I don't know how to do this! I don't even understand the problem!' This is natural, so please do not imagine that you are an idiot if you cannot immediately grasp all the fine points of the assignment.

Again I ask you to trust me for a moment. Confidence is what allows you to approach a problem with a positive attitude about your ability to solve it. Your attitude will contribute to your success; if you believe you can do it, maybe you can; if eventually you fail, at least you gave it your best shot so you have nothing to be ashamed of. However, if you start with the attitude that the problem is too much for you, you start with two stikes. We all know how low batting averages would be if everyone started with two strikes. If you do not believe that you can, you might not; if you have confidence, you might.

I can already see your reply, 'That's easy for you to say, but what if I really don't understand?' Of course attitude does not guarantee success but at least it gives you a starting place. Just because you have confidence does not imply that you are perfect; sometimes you will be stumped. But when it does happen you will realize that it is only a temporary setback because you KNOW that you can do it. What you do is find out how: talk to your friends, maybe they have some good ideas; talk to the course tutor, he will be able to explain the assignment; talk to a programmer-on-duty, he can help you with minor bugs that you may have or just miscellaneous question; if all else fails, talk to your professor, he can help you with any serious theoretical problems and doubts you have. In the end, you have to rely on yourself to accomplish the task. I have confidence in you.

SOURCE: The musings of John Dupuis and the book, PASCAL WITH STYLE: PROGRAMMING PROVERBS; Henry F. Ledgard, John F. Hueras and Paul A. Nagin; Haydin,1979.

CLASSIFIED ADS

Every respectable newspaper has them. So now they're coming to CUG NEWS, if demand warrants. Basically, if enough people are interested then we'll start printing advertisements for computer equipment wanted to sell or to buy. This service is for individuals only--no dealers, please. Cost will be nominal: $2 for the first 30 words, plus $0.10/word thereafter, with a minimum charge of $2, for a single month's copy.

If you're interested, contact CUG at H-983, telephone 879-7329.